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CANADA'S COMPUTER INFORMATION SOURCE

# COMPUTER PAPER

NEWS

REVIEWS

FEATURES

ONTARIO EDITION SEPTEMBER 1993 VOLUME 8 NO. 3

## Buying a Computer for Your Kids

What to Look for in  
Hardware and  
Software



**New from Apple**  
Newton MessagePad  
and Multimedia Macs

OCR and image editing with  
**Low-cost Color Scanner**  
for PC and Macintosh

**CorelDRAW 4.0**  
The Ultimate Drawing Package?

## 440456

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**Abstract**

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## MURDO (2003)

MEAN	1.00
STANDARD DEVIATION	1.00
MINIMUM	0.00
MAXIMUM	1.00
RANGE	1.00
MODE	1.00
STANDARD ERROR OF MEAN	0.00
SUM OF SQUARES	1.00
VAR	1.00
COV	1.00
PEARSON CORRELATION	1.00
SKEWNESS	0.00
KURTOSIS	0.00
MEAN	1.00
STANDARD DEVIATION	1.00
MINIMUM	0.00
MAXIMUM	1.00
RANGE	1.00
MODE	1.00
STANDARD ERROR OF MEAN	0.00
SUM OF SQUARES	1.00
VAR	1.00
COV	1.00
PEARSON CORRELATION	1.00
SKEWNESS	0.00
KURTOSIS	0.00

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120 MM INTERPOL	11700
250 MM INTERPOL	10000
120 MM FORTHMAN	10000
250 MM FORTHMAN	9400
50 MM VANTAGE TITAN	14000



## 444-660-5000

Year	Value	Year	Value
1997	100.00	1998	100.00
1999	100.00	2000	100.00
2001	100.00	2002	100.00
2003	100.00	2004	100.00
2005	100.00	2006	100.00
2007	100.00	2008	100.00
2009	100.00	2010	100.00
2011	100.00	2012	100.00
2013	100.00	2014	100.00
2015	100.00	2016	100.00
2017	100.00	2018	100.00
2019	100.00	2020	100.00
2021	100.00	2022	100.00
2023	100.00	2024	100.00
2025	100.00	2026	100.00
2027	100.00	2028	100.00
2029	100.00	2030	100.00
2031	100.00	2032	100.00
2033	100.00	2034	100.00
2035	100.00	2036	100.00
2037	100.00	2038	100.00
2039	100.00	2040	100.00
2041	100.00	2042	100.00
2043	100.00	2044	100.00
2045	100.00	2046	100.00
2047	100.00	2048	100.00
2049	100.00	2050	100.00
2051	100.00	2052	100.00
2053	100.00	2054	100.00
2055	100.00	2056	100.00
2057	100.00	2058	100.00
2059	100.00	2060	100.00
2061	100.00	2062	100.00
2063	100.00	2064	100.00
2065	100.00	2066	100.00
2067	100.00	2068	100.00
2069	100.00	2070	100.00
2071	100.00	2072	100.00
2073	100.00	2074	100.00
2075	100.00	2076	100.00
2077	100.00	2078	100.00
2079	100.00	2080	100.00
2081	100.00	2082	100.00
2083	100.00	2084	100.00
2085	100.00	2086	100.00
2087	100.00	2088	100.00
2089	100.00	2090	100.00
2091	100.00	2092	100.00
2093	100.00	2094	100.00
2095	100.00	2096	100.00
2097	100.00	2098	100.00
2099	100.00	2100	100.00



## BY CONGRUENCE

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## PROCESSES OF OPERATION

MONDAY	9AM-6P'M
TUESDAY	9AM-6P'M
WEDNESDAY	9AM-6P'M
THURSDAY	9AM-6P'M
FRIDAY	9AM-6P'M
SATURDAY	9AM-6P'M
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MEGA-22	2 1/2" x 6 1/2"	11,444	54,000	27 sec.
MEGA-23	2 1/2" x 6 1/2"	11,888	55,300	27 sec.
MEGA-24	2 1/2" x 6 1/2"	12,333	56,600	27 sec.
MEGA-25	2 1/2" x 6 1/2"	12,777	57,900	27 sec.
MEGA-26	2 1/2" x 6 1/2"	13,222	59,200	27 sec.
MEGA-27	2 1/2" x 6 1/2"	13,666	60,500	27 sec.
MEGA-28	2 1/2" x 6 1/2"	14,111	61,800	27 sec.
MEGA-29	2 1/2" x 6 1/2"	14,555	63,100	27 sec.
MEGA-30	2 1/2" x 6 1/2"	15,000	64,400	27 sec.
MEGA-31	2 1/2" x 6 1/2"	15,444	65,700	27 sec.
MEGA-32	2 1/2" x 6 1/2"	15,888	67,000	27 sec.
MEGA-33	2 1/2" x 6 1/2"	16,333	68,300	27 sec.
MEGA-34	2 1/2" x 6 1/2"	16,777	69,600	27 sec.
MEGA-35	2 1/2" x 6 1/2"	17,222	70,900	27 sec.
MEGA-36	2 1/2" x 6 1/2"	17,666	72,200	27 sec.
MEGA-37	2 1/2" x 6 1/2"	18,111	73,500	27 sec.
MEGA-38	2 1/2" x 6 1/2"	18,555	74,800	27 sec.
MEGA-39	2 1/2" x 6 1/2"	19,000	76,100	27 sec.
MEGA-40	2 1/2" x 6 1/2"	19,444	77,400	27 sec.
MEGA-41	2 1/2" x 6 1/2"	19,888	78,700	27 sec.
MEGA-42	2 1/2" x 6 1/2"	20,333	80,000	27 sec.
MEGA-43	2 1/2" x 6 1/2"	20,777	81,300	27 sec.
MEGA-44	2 1/2" x 6 1/2"	21,222	82,600	27 sec.
MEGA-45	2 1/2" x 6 1/2"	21,666	83,900	27 sec.
MEGA-46	2 1/2" x 6 1/2"	22,111	85,200	27 sec.
MEGA-47	2 1/2" x 6 1/2"	22,555	86,500	27 sec.
MEGA-48	2 1/2" x 6 1/2"	23,000	87,800	27 sec.
MEGA-49	2 1/2" x 6 1/2"	23,444	89,100	27 sec.
MEGA-50	2 1/2" x 6 1/2"	23,888	90,400	27 sec.
MEGA-51	2 1/2" x 6 1/2"	24,333	91,700	27 sec.
MEGA-52	2 1/2" x 6 1/2"	24,777	93,000	27 sec.
MEGA-53	2 1/2" x 6 1/2"	25,222	94,300	27 sec.
MEGA-54	2 1/2" x 6 1/2"	25,666	95,600	27 sec.
MEGA-55	2 1/2" x 6 1/2"	26,111	96,900	27 sec.
MEGA-56	2 1/2" x 6 1/2"	26,555	98,200	27 sec.
MEGA-57	2 1/2" x 6 1/2"	27,000	99,500	27 sec.
MEGA-58	2 1/2" x 6 1/2"	27,444	100,800	27 sec.
MEGA-59	2 1/2" x 6 1/2"	27,888	102,100	27 sec.
MEGA-60	2 1/2" x 6 1/2"	28,333	103,400	27 sec.
MEGA-61	2 1/2" x 6 1/2"	28,777	104,700	27 sec.
MEGA-62	2 1/2" x 6 1/2"	29,222	106,000	27 sec.
MEGA-63	2 1/2" x 6 1/2"	29,666	107,300	27 sec.
MEGA-64	2 1/2" x 6 1/2"	30,111	108,600	27 sec.
MEGA-65	2 1/2" x 6 1/2"	30,555	109,900	27 sec.
MEGA-66	2 1/2" x 6 1/2"	31,000	111,200	27 sec.
MEGA-67	2 1/2" x 6 1/2"	31,444	112,500	27 sec.
MEGA-68	2 1/2" x 6 1/2"	31,888	113,800	27 sec.
MEGA-69	2 1/2" x 6 1/2"	32,333	115,100	27 sec.
MEGA-70	2 1/2" x 6 1/2"	32,777	116,400	27 sec.
MEGA-71	2 1/2" x 6 1/2"	33,222	117,700	27 sec.
MEGA-72	2 1/2" x 6 1/2"	33,666	119,000	27 sec.
MEGA-73	2 1/2" x 6 1/2"	34,111	120,300	27 sec.
MEGA-74	2 1/2" x 6 1/2"	34,555	121,600	27 sec.
MEGA-75	2 1/2" x 6 1/2"	35,000	122,900	27 sec.
MEGA-76	2 1/2" x 6 1/2"	35,444	124,200	27 sec.
MEGA-77	2 1/2" x 6 1/2"	35,888	125,500	27 sec.
MEGA-78	2 1/2" x 6 1/2"	36,333	126,800	27 sec.
MEGA-79	2 1/2" x 6 1/2"	36,777	128,100	27 sec.
MEGA-80	2 1/2" x 6 1/2"	37,222	129,400	27 sec.
MEGA-81	2 1/2" x 6 1/2"	37,666	130,700	27 sec.
MEGA-82	2 1/2" x 6 1/2"	38,111	132,000	27 sec.
MEGA-83	2 1/2" x 6 1/2"	38,555	133,300	27 sec.
MEGA-84	2 1/2" x 6 1/2"	39,000	134,600	27 sec.
MEGA-85	2 1/2" x 6 1/2"	39,444	135,900	27 sec.
MEGA-86	2 1/2" x 6 1/2"	39,888	137,200	27 sec.
MEGA-87	2 1/2" x 6 1/2"	40,333	138,500	27 sec.
MEGA-88	2 1/2" x 6 1/2"	40,777	139,800	27 sec.
MEGA-89	2 1/2" x 6 1/2"	41,222	141,100	27 sec.
MEGA-90	2 1/2" x 6 1/2"	41,666	142,400	27 sec.
MEGA-91	2 1/2" x 6 1/2"	42,111	143,700	27 sec.
MEGA-92	2 1/2" x 6 1/2"	42,555	145,000	27 sec.
MEGA-93	2 1/2" x 6 1/2"	43,000	146,300	27 sec.
MEGA-94	2 1/2" x 6 1/2"	43,444	147,600	27 sec.
MEGA-95	2 1/2" x 6 1/2"	43,888	148,900	27 sec.
MEGA-96	2 1/2" x 6 1/2"	44,333	150,200	27 sec.
MEGA-97	2 1/2" x 6 1/2"	44,777	151,500	27 sec.
MEGA-98	2 1/2" x 6 1/2"	45,222	152,800	27 sec.
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## COMPUTERS

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2015年1-6月 美国主要农产品对华出口情况				
美国农产品出口	2 个月	80 万吨	57.1 亿美元	美国
美国农产品出口	4 个月	1 200 万吨	927.4 亿美元	美国
美国农产品出口	6 个月	1 800 万吨	1 374.5 亿美元	美国
美国农产品出口	8 个月	2 100 万吨	1 578.5 亿美元	美国
美国农产品出口	10 个月	2 300 万吨	1 720.5 亿美元	美国
美国农产品出口	12 个月	2 400 万吨	1 800 亿美元	美国
美国农产品出口	14 个月	2 500 万吨	1 875 亿美元	美国
美国农产品出口	16 个月	2 600 万吨	1 950 亿美元	美国
美国农产品出口	18 个月	2 700 万吨	2 025 亿美元	美国
美国农产品出口	20 个月	2 800 万吨	2 100 亿美元	美国
美国农产品出口	22 个月	2 900 万吨	2 175 亿美元	美国
美国农产品出口	24 个月	3 000 万吨	2 250 亿美元	美国
美国农产品出口	26 个月	3 100 万吨	2 325 亿美元	美国
美国农产品出口	28 个月	3 200 万吨	2 400 亿美元	美国
美国农产品出口	30 个月	3 300 万吨	2 475 亿美元	美国
美国农产品出口	32 个月	3 400 万吨	2 550 亿美元	美国
美国农产品出口	34 个月	3 500 万吨	2 625 亿美元	美国
美国农产品出口	36 个月	3 600 万吨	2 700 亿美元	美国
美国农产品出口	38 个月	3 700 万吨	2 775 亿美元	美国
美国农产品出口	40 个月	3 800 万吨	2 850 亿美元	美国
美国农产品出口	42 个月	3 900 万吨	2 925 亿美元	美国
美国农产品出口	44 个月	4 000 万吨	3 000 亿美元	美国
美国农产品出口	46 个月	4 100 万吨	3 075 亿美元	美国
美国农产品出口	48 个月	4 200 万吨	3 150 亿美元	美国
美国农产品出口	50 个月	4 300 万吨	3 225 亿美元	美国
美国农产品出口	52 个月	4 400 万吨	3 300 亿美元	美国
美国农产品出口	54 个月	4 500 万吨	3 375 亿美元	美国
美国农产品出口	56 个月	4 600 万吨	3 450 亿美元	美国
美国农产品出口	58 个月	4 700 万吨	3 525 亿美元	美国
美国农产品出口	60 个月	4 800 万吨	3 600 亿美元	美国
美国农产品出口	62 个月	4 900 万吨	3 675 亿美元	美国
美国农产品出口	64 个月	5 000 万吨	3 750 亿美元	美国
美国农产品出口	66 个月	5 100 万吨	3 825 亿美元	美国
美国农产品出口	68 个月	5 200 万吨	3 900 亿美元	美国
美国农产品出口	70 个月	5 300 万吨	3 975 亿美元	美国
美国农产品出口	72 个月	5 400 万吨	4 050 亿美元	美国
美国农产品出口	74 个月	5 500 万吨	4 125 亿美元	美国
美国农产品出口	76 个月	5 600 万吨	4 200 亿美元	美国
美国农产品出口	78 个月	5 700 万吨	4 275 亿美元	美国
美国农产品出口	80 个月	5 800 万吨	4 350 亿美元	美国
美国农产品出口	82 个月	5 900 万吨	4 425 亿美元	美国
美国农产品出口	84 个月	6 000 万吨	4 500 亿美元	美国
美国农产品出口	86 个月	6 100 万吨	4 575 亿美元	美国
美国农产品出口	88 个月	6 200 万吨	4 650 亿美元	美国
美国农产品出口	90 个月	6 300 万吨	4 725 亿美元	美国
美国农产品出口	92 个月	6 400 万吨	4 800 亿美元	美国
美国农产品出口	94 个月	6 500 万吨	4 875 亿美元	美国
美国农产品出口	96 个月	6 600 万吨	4 950 亿美元	美国
美国农产品出口	98 个月	6 700 万吨	5 025 亿美元	美国
美国农产品出口	100 个月	6 800 万吨	5 100 亿美元	美国

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Source: U.S. Census Bureau, *U.S. Census of Population, Housing, and Income*, 1990.

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DISTRIBUTION: Sat., Sept. 12

NOVEMBER

### Monitors Unix Workstations CAD, 3D Rendering

CLASSIFIED Mon., Sept. 27  
CAMERA READY ADS: Thur., Sept. 30  
DISTRIBUTION: Fri., Oct. 15

DECEMBER

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CLASSIFIED Mon., Nov. 1  
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DISTRIBUTION: Fri., Nov. 19

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### Comdex Canada

The American retail sale-show in July and showed Toronto here to get on a trade show. The Interline Group is the American company that runs Comdex in Las Vegas every fall and in Atlantic every spring. Comdex Las Vegas is North America's biggest trade show with 145,000 people and 3,000 plus exhibitors.

This is, after all, only Toronto, so the numbers weren't quite so high here. I overheard a couple of American exhibitors discussing the show. "It is just like a baby Comdex," just by applying the Comdex name to last year's PC Canada show they lured the attendance and the number of exhibitors substantially. Show management estimated over 44,000 people attended last year, up from 34,000 who attended last year's PC Canada. There were 344 exhibitors and the show took up the full top floor of the Metro Convention Centre as well as Convention Hall in the basement—state-of-the-art a full three times the size of last year.



From the Editor

Many American companies were on the floor today based on the Comdex name. According to Interline G.P. Dick Schmidt, the name originally stood for Computers, Office Machines, Data and for the major market among the users—retailers, buyers and computer dealers. These exhibitors would not have brought their wares to any Canadian sponsored show, but presumably came here because of their location at the other large shows. The Interline Group has great expectations for next year's show and negotiations are on to get the Windows World portion of the show to the September-10 they can just keep the Bay Jays out of town for a while.

### Alpha and NT

This show's big news was the release of Windows NT and the launch of Digital Equipment Corporation's line of RISC-based Alpha chip powered PCs. Some PCs lay claim to being the world's fastest. IBM

to allow these vendors into the action. Canadian vendors Dorian Technology and Atlantic Computers were both on the show floor with prototypes. Prices start at the \$10,000-and-up range. Check that your software runs on it. Although IBM won't support an operating system with resolution through its Display Subsystem, graphics capabilities were with a degree of limited compatibility, remember that this is a completely new chip.

Windows NT is Microsoft's advanced operating system designed for corporate and high-end computing (i.e. work at home) which will allow Windows applications to escape from the Intel-based platform and fly with a variety of RISC-based systems.

### Green PCs

IBM, AST and Acer were touting Energy Star standard PCs. Energy Star is a new U.S. government-backed initiative to make PCs use less power. According to Acer, members of Energy Star agree to introduce energy-saving PCs and processors that automatically enter a low-power state, shutdown in 30 watts or less when idling. The government's target here is to save an estimated \$1.5 billion a year in electricity bills but because many corporations and individuals have their computers on continuously, Acer tells a model that uses its own proprietary technology that takes the system down to 0.1 watts, substantially less than 30 watts. These PCs raise some questions about compatibility and single-source components. If each vendor goes to its own devices, consumers will have to shop carefully and they may be looking for brands of a brand line of compatible components now or later. Another issue is that consumers may be lulled into buying these units not just continuously because they are "green units." Many of them will still consume 30 watts—more including the monitor. Ultimately Energy Star is not enough now it will make sense to turn off your system when not in use at the end of the day.

Digital did use an impressive show, but that seems to be a turning point for the computer industry in Ontario.

Enjoy the issue

Doug Alder  
Editor/Publisher

## Mailbox

### Here and Now

Your column in the July '93 edition of The Computer Paper caught at the end—between electric cars will be, very real. I have been thinking about electric cars for a long time in my converted Chevy 1/2 Electric pickup since last fall. I have seen for you electric cars we have right now, as we U.S.A. members say "The vehicle is not electric now."

I major new paper is a lot better!

Peter Jacobs

Victoria BC

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ed@telnet.com.bc.ca

### Reader Comments

We're excited a little present to buy a car, but for the kids. First off, the wheels of these computers are and even in grade four our kids have learned that "the wheels go around on the Computer Paper!" As a director, I know how useful learning computers can be, and only for the usual repetitive office work but for self-employed people in all fields of work, and now one of our family friends is putting computers and Minipages as the best way to keep kids busy and happy that she's overboard.

Of course, the time to download Year-computer when it's an added use to kids. This

—Continued on page 12



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1. **Identify the problem.** The first step in the problem-solving process is to identify the problem. This involves recognizing the symptoms of the problem and determining the underlying cause.



**Abstract**

1992

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1000

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**Figure 1**



## Report

## Software Exec Outlines Education Future

Jan Davidson, president of Canadian Association, led the National Educational Computing Conference audience in Ontario to rapid innovation during his keynote address. Unlike the sales pitch delivered a day earlier by IBM's Trip Hawkins, Davidson issued a call to action asking teachers to think of students as customers to be satisfied, not changes to be fit.

His talk, titled "The Future Is A Little Ahead of Us," recalled past conferences where the act in the audience when people like Bill Gates and John Deacy presented products and concepts which are now common currency. He was already familiar to be in that place, and his audience felt acquiring the former makes so one of their own, and he pointed out that he had to be.

"In Information Age classrooms, the focus will move through the school day in a similar way that adult counterparts move through the working day. They will manage their time, they will have tools. They will have resources. And they will take responsibility for a given task, leverage their skills, learn the information needed to solve a problem, and work with classmates to get the job done."

His talk moved toward school privatisation, public-private choices and whether Education Ministry are introducing change toward such a direction, and while students in a good

meeting the debate forward.

Like many other keynote references, Davidson invited suggestions by Trip Hawkins that the younger kids should not use computers. "There are potential products for younger kids — our software and Bill Cal work with that, but when you work with kids you need a keyboard." The proposed 100 machines will lack keyboards for some time. "It's not contained people

will want to have at least of the 77 say very," Davidson added.

Davidson also addressed the problem of high-tech classrooms, the fact that many schools have only old PCs on which the new software won't run. "It does make things difficult for parents who have their old PCs to their kids. I could step 100 GAs this today, but that's not what I want. We find people complaining that we aren't

glory. I couldn't get the point or words here with GAs (graphical) for schools, the argument, 'I understand education wants things to stay the same, but they should not think of technology as something you do once. It should be a permanent part of the budget.'

Contact: Linda Gotschewski, Davidson is Associate, 110-710-0800/110-710-710-0800.

**WALK. SHOP. COMPARE.  
WALK. SHOP. COMPARE.  
WALK. SHOP. COMPARE.  
WALK. SHOP. COMPARE.**



**In Information Age classrooms, students will move through the school day in a similar way their adult counterparts move through the workplace**

thing. "In order to serve our customers we need to embrace the second Cal of Information Age: Change." Change is something that's not just a common place.

"The latest in computer-based learning systems, from modules for learning and education — finally sounds like life in the Information Age. It's not in life in the Information Age. If you school hasn't remained on a course of change, I challenge you to lead the way." In that change, computers are neither, not the change itself. "The feeling of empowerment, a child expects when she learns to use a tool on the computer is similar to the feeling of empowerment a child feels when the first lesson is self-directed. It's exhilarating."

And it can happen every day, he concluded. But a constant reminder to making computers tools in their learning and education part of the learning environment. He said, "It's up to us to go back to our schools and be the change makers. We all wanted the profession to make a difference in the lives of our students. What has happened to you today is that in order to do so, you have to also make a difference to your school."

Davidson in optimistic about technology as becoming part of America's education. "People are catching on and we're controlling ourselves into the future more and more." He cited John Lippert's "Kids in Computers" from Pearson Education's latest Publishing unit as being among the books

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It is hardly that easy, even with the help of my, period. I expect that a more than few new rules will be suggested. It is possible for designers who suggested only to discover what looking on the bleeding edge is all about. It is unfortunate for those users that CorelDRAW 4.0 does not have a "document" option, nor the ability to set the "document" option.

Other users detail problems with Coq's `REWRITE` + `OLE` object linking and unlinked object implementations. Coq's `REWRITE`, claims Microsoft, saying that a "multiple access release" of `OLE 3.0`, expected later this year, should address the bugs.

Other reports describe various problems with the spacing in paragraphs and FontHeight output and the EPI (reformatted) Postscript output appears. There is a fairly detailed list at <http://www.inform.com>, and in some cases, possible workarounds — pointed to Kornacker by S. Condit at [414@illinois.edu](mailto:414@illinois.edu) although unduly claiming to read some of the bugs described in this list, such as a post-partum problem with the program's "Theater" list — did not occur in my testing, it gives some idea of what the project is or at least the scope of.

1. One of the problem experts, such as complaints about the program being even slower than version 1.0, are not bugs per se but are valuable to know about before trying to upgrade. I don't know if Compaq's latest also contains a huge number of technical support documents and other helpful information for the customer base.

Although most members of the Open Group regard the problems as fairly minor, it's relatively obvious that these problems will color subsequent editions. Again, by attempting to place a CoreOS/OS/2 API in PostgreSQL, described on OpenSPEP, I couldn't find any that wanted to hooked up the system and I can't see releasing a file for this reason either. After all, you don't have to use GNU 2.0's "tools to place" functions, and you can export files in many formats other than CoreOS/OS/2 API. Just looking at the OpenSPEP API, which is not a real API, I think it's clear that you can't use it to build a real API. Good people to have a clear message from the system. It should be clear that you're getting, running, testing, or working properly. It's not a good idea to use new tools, and it's not a good idea to use new tools, and it's not a good idea to use new tools, and it's not a good idea to use new tools.

The company must surely be unaware of how useful its automatic technical support system (known as Tring) is. After dialling the tech support number, I spent a long list of hours (and even dialling) making several selections. I was shocked to find that, at this very step, I called the system only for the answer to one question—how to find your local number. (GASP)

The problem of course is that using the automated system's suggestions as planned "if you need help finding your COMBUSTION wheel course, press 1, the all other questions press 2." Unfortunately option 2 informed me that "there is no information available regarding your push lawn." So taken aback by this was I that I called three times just to make sure this wasn't a case of DTS operator error. The third time, I asked the representative what he thought I pressed, emphatically, "she told me 'That's the way to reach a technician'."

(Ed comment)

When I finally got through, I edited a program that recommended updates of the Windows XP/Script driver. I was told that instructions were already available.

all other users should use 3.55 (personnel technical support apparently reports that it has no problems). Unfortunately, the only driver supported by Aides is 3.55 which often developed especially for Page-Masters.

Some contributors to *42* even report that they cannot change the page source or navigation with the 3.04 driver. I did not experience this problem, although I found some of the others mentioned earlier.

An unattended router intercepting Wi-Fi files from CorelDRAW into PageMaker caused a hilarious error. Adobe also advises against trying to load a CorelDRAW .JPG file

being fertilized. cloning, it causes a general reduction in birth rates.

I called Alden Tech support to find out whether this problem was specific to Camt's. (None of previous versions may recall that COMDRAWK (4) is under TIFF and EPS input functions that had worked correctly in version 1.04 of this program.)

git through for our customer, a Corel technician told me the patch is available via Corel's new Update Center Forum (UCF) CDRL file. It is in a file called **UPDATE.CDL**. It is also on Corel's own FTP. Apparently, our really shipping version of CorelDRAW 4.0 do not include this file, although later manufactured units are expected to.

He also told me that all other input and output functions worked well in 4.0, with the possible exception of the CGM (computer graphics metafile: a common PC image format), which, apparently, has some problems (on Compaq's part, since most recent laptops are displayed undistorted).

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In addition to *Calico II*, the scanner system bundled with Calico's *InterForm II* optical character recognition software. This package, which normally comes a suggested retail price of \$334.99, is a complete and fast file OCR utility (it converted a 12 "micro" from *InterView magazine* and was entered on "Today" second on 1/14) and adds greatly to the value and usefulness of the package. (200)

Windows directly supports a wide range of screens, including those from 1600 pixels wide to Apple's SuperDrive, Hewlett-Packard, Minolta, and Noritsu. Windows also uses OCR images saved in TIFF files and can OCR images received by a faxmodem. And, as fast as my tests, Windows proved to be much better at OCR than Lotus' SmartSuite (see p. 10). Windows was established by Gates (or some one) more than twice as fast as Core's software and more accurate.

In fact, although neither product was especially good at reducing a standard-quality tax, *ChenPage* is especially poor on tax DCR. At least I could make sense of the *WordFlow* is included (the *ChenPage* is not) was all but certain (both).

Unfortunately, WordScan is not without its problems. The program crashed every time I ran it on a Quadra or Centris — even with no other system extensions (SXTs) running. I discovered to my chagrin that some-

But was stopped by an unexpected problem: The customer service number provided in the "out of service" faxed a letter included with the manual compromising me on my purchase had a 1-800 number which worked. An employee at this business office number was able to give me the new toll-free number. Colors says it changed its number to 1-800-455-5555.

Level entry, I got through to Client tech support where a technician confirmed my suspicion: WordScan II has a problem running on any Macintosh equipped with an 840 processor unless the "vector" is turned off — which slows the machine down by about 50%. (All the current Apple IIx-based lineup includes the Core Duo 520, 650, 660e, the Quadra 780, 800, 8500, 8600, and 8650, as well as the Power

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Many systems are not run locally when it comes to configuring **USCPCOM**. However, this product is an example of how easy it is to do: you can be made with the **MailServer** set of menu-driven and default. Several menu-based users (users or other users) are supported. This provides full menu-based control. **USCPCOM** has the package also allows some right responses to be specified for those users who have specialized domains.

#### MailServer for Organization

**USCPCOM** allows the user to create any number of mail boxes. A mail box is a collection of messages made the same as a folder in a collection of files. A mail box is defined with the same name as the Email user whose incoming messages are stored in it. The package facilitates easy man-

agement of messages between mailboxes, copying and moving or export of messages. Additionally, several mailboxes may be used to organize incoming and sent messages under categories. Although the user and mail message interfaces are separate dialogues, they share the same interface look and feel and use the same underlying mechanisms. Mailboxes may be used to list new items with the same click and drag as is used to move mail messages from one box to another. **USCPCOM** displays many options. Users can, for various displays, be getting the configurable list of files and folders. Sent messages can be set to reference the user files and many other organizations are possible. Additional functions such as split, join and folders are also provided.

#### Communication Options

**USCPCOM** works with the local Mail Communications facilities to provide several options to local communications. It can also use **USCPCOM** through AppleLink. **USCPCOM** does not restrict the Mail to being a local mail in the **USCPCOM**. It allows a Mailbox to do mail and receive the sending for other users. This can be particularly useful for an AppleLink LAN. Mail on a LAN can be provided with local or mail system and external transferring via local Internet messages. This feature allows the complete implementation of an internal mail system, for an organization using Mail or a LAN. Such a LAN may also use other mail with a modem as a gateway to external mail and news. An existing feature of **USCPCOM** allows a mail address any where on the LAN to appear externally as if they were on the local gateway machine. An e-mail system using such an organization does not have to have any external access. A

multi-location organization with no access to AppleLink LAN could use **USCPCOM** and modems to bridge their LAN. This allows both the exchange and mail across a wider network than just the enclosed files.

#### Performance

This package runs on the minimal system, an 8 Mega byte with 1 megabyte of memory and a hard disk, but a faster file with more main memory should be strongly recommended. **USCPCOM** communications run in the background but the faster machines is required for comfortable word processing, news reading or similar functions in the background. A component called the **USCPCOM** network module is not given to directly affect running on the background.

For various **USCPCOM** modules, speed and disk capacity become more important components than CPU speed. Ideally, it takes a day of **USCPCOM** connection at 28800 baud and handles enough news and mail to keep someone going busy reading and copying. In several busy Internet environments, being stopped is not a big concern but it is a big concern. However, the ability to accumulate a backlog of news is one reason people prefer reading their news. **USCPCOM** can use news reading. The news server itself always keep all the news that goes by on a period where the user may temporarily be unable to keep up. Someone watching a large group who get behind in reading will find that following their own news is a means of ensuring that nothing is ever missing is missed. Heavy Internet news consumers should be prepared to allocate some of computer's hard disk to news and will find a 1600 hard or better medium useful. The long-disk user can find that a fast medium quickly pays for itself.

One of the main reasons for the usability functions of **USCPCOM** is the opening and closing of mailboxes and messages. Internally **USCPCOM** keeps a mailbox in memory up to a single mailbox file. When this file has more files in it it is time to attempt to open in an order of items that will be up. It is time-consuming again to close when several items are being deleted. If the mailbox was kept as a Macintosh folder with each item as a single file it could be faster and more convenient. In some cases, only one or two items would be deleted. This is made in the Macintosh file system. It is not clear how the disk space and would this be any value or not directly on the storage. It is made to enter again.

#### Documentation

The manual part of the **USCPCOM** manual package is its documentation. This consists of a manual and two add-ons. All the basic necessary information for installation and use of the package is there. However, it is not fully indexed and has not been completely and fully professional made the last few changes to the actual package.

#### Overall

Even if it is not made the most desirable feature, **USCPCOM** is a very usable and useful package, and a good buy at its current price. ■

**Philip Fletcher** is a communications consultant and software designer currently working in the North Island and Southern Coast area of BC. He may be reached via the **USCPCOM** address [phf@hpl.hp.com](mailto:phf@hpl.hp.com) or by phone (604)481-4291.



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
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What happens is that you log on to the system (not the Internet site). You can then browse through their file listings and download whatever catches your fancy. They are moved from site to site very quickly — usually 40 kilobytes per second or faster.

You need three bucks in hand, starting at the outset of time. You want to download something but don't know where to find it. Where to start? As the guide says, "This sounds like a good job for a retrieval service in a program — one called Archie located at McGill University in Montreal."

Archie is like the "Who's Who" of the network file directories. Archie was created to allow people to find things by providing keywords. Every month Archie logs onto every major system on the net and downloads every publicly available file listing, then updates its own database with this information. If you want to know where something is, just ask Archie.

#### The world's largest file base

On the Internet is something called IBC — Internet Bitch Chat. It's a chat program that Ron Rosenzweig, of "Schneems," and others operate on the Internet in bits to transfer what's hot on IBC. This one does it really fast. It is. It doesn't run on any particular machine architecture — it runs everywhere. IBC is like CB radio. It's just "bitch" and all you have to do is tune in to it.

Also on the net, IBC chat, this one includes members all over the planet and has a much wider scope. It's not just a chat room; it's really into anyone except in the conversations of the members. It's really really cheap, just for it. Chat you have the ability to connect to the Internet via IBC.

#### Multi-user games for free!

If everything I've said doesn't make you want to go onto the Internet, this will. There are programs called MUDs (for Multi-User Dungeons) and they are very popular role-playing and have online adventures.

These games resemble the text-based telnetcom-style adventures games except you're not the only one playing. While many of them follow the traditional dungeon theme there are ones for Star Trek and other 3D fantasy games. Chess and other board games are also available online.

#### Telnet connecting to other services

Telnet is an Internet utility that allows you to log on to another system that's also on the net. Just as you'd call up a BBS over the telephone, Telnet allows you to call up a BBS or similar service via Internet.

Telnetting to other places is something. The White Internet Guide is a real world for it. It lists hundreds of sites you can log up to and what they offer. While most of them are academic organizations, there are a lot of fun sites too. Like the online collection of literary Python characters at U.C. Berkeley, or Wikin Information Canada, where you can download GIF maps of

#### where to locate around the globe

Just like calling up BBSs, there are membership requirements, such as paying fees, to use some of the services at other sites.

#### Just do it

After reading the book, you might still feel a little uneasy not using the Internet just to worry. I do when I start too. The best thing to do is to explore everything in this as you go. Don't make up your mind and keep things on the wall behind you months. You'll soon begin to feel more familiar with many of the complex, and

useful, commands that you'll need to use when using things like advanced browsing mail readers and other Internet utilities.

Source: I'd like to thank David Meisel and the gang at Internet Online Review (IOIR) for the disconcerting how easy and fun the Internet can be. I'd also like to thank Rick Knecht for providing the following list of public Internet sites. If you have any comments or want to be added to your system to the list, you can contact Rick at 708/8811475/117000. Called you can reach me at 708/776630/3000. ■

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6001 or how to use it."

One of the problems to Logic's success is that of what I call a "feature creep." It is that of the business and tools you have with a desktop. Unfortunately, it doesn't tell you anything about how or why you would use these things. This program really needs a manual manual.

For example, the first couple of times I worked with it, I accidently wrote, and could play them back, but I couldn't find the data file editing or viewing. I went back somewhere to find a different manual feature of Logic and objects.

What did I like best? The fact that every thing is an object with an associated icon of your choosing is very cool and flexible. The built-in a program, delay and other processing objects are very cool. Unlimited tracks, unlimited notes.

What did I dislike most? I really had trouble playing the way that the different/multi-track/track/track/track and input objects were mixed. I like most people I know approach sequencing from the bottom up. I start with the notes, Logic makes the other way. The notes are based very little on a variety of folders. What you see in the front end refers you can get deep enough to find out you have no relationship to what the data is being sequenced. In other ways Logic seems anything but logical.

Also, the lack of a clearly related and interesting, universal data/feature is a big when it is my mind. Those who have used a sequencer, especially with a multi-track/track/track/track and have the dynamic representation of your system, you can add plenty to the "sequencer" of a computer. I like the Pro/Logic or Galaxy/Logic on the top examples of this system on the Mac.

In fact, Logic compares with Notator 3.2. One user's comment about the two programs was that he had the 3.2 did the comparison. It is then compared to Logic version 3.2. They have almost identical, an upgrade and not a new release. I like the Mac.

For Logic the best solution is to use each program as it is, not to turn it into a multi-track/track/track/track and a multi-track/track/track/track. It is the other part of the logic, and then when things are coming together, find it into Logic and make the arrangement. It seems like the "top down" approach of Logic is more the well suited for setting up big chunks of data into meaningful data.

As I have more time, I compare again on one thing. The feature logic of the program is very high."

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#### Logic for the 3.2

Also, then and a bigger thing, too.

Mac's some interesting information from Macworld, the Canadian distributor of Logic.

Logic for the 3.2 ships with Notator 3.2 included. The two programs are too. When you upgrade, you make your upgrade to a new one that will use both the new data track/track/track/track and Logic as well. That has got many users thinking about using the upgrade.

Current 3.2, users can upgrade to new Notator for CD-ROM. The upgrade package includes Logic 3.2, the new version, Notator 3.2, and the new version, plus a copy of a universal editing/track/track/track called "Sound buffer" which is expected to be out this fall.

The upgrade is useful too. It has been their MIDI outputs, so it plays MIDI out.

E.C. and D effectively replace C (and L) EXCEPT indirectly. (Logic 3.2 users can just plug into the new Logic design.)

#### Here's a quote from the May 1992 issue of **REASON**

"Logic is a new sequencing program. Notator Logic includes a new copy/paste/then key that provides three distinct MIDI outputs, plus an additional set point for MIDI out 3. A new through MIDI port for you choose additional devices made in Unit II or 3.1/3.2/3.3 and take advantage of their MIDI with MIDI/3.2/3.3/3.4/3.5/3.6/3.7/3.8/3.9/3.10/3.11/3.12/3.13/3.14/3.15/3.16/3.17/3.18/3.19/3.20/3.21/3.22/3.23/3.24/3.25/3.26/3.27/3.28/3.29/3.30/3.31/3.32/3.33/3.34/3.35/3.36/3.37/3.38/3.39/3.40/3.41/3.42/3.43/3.44/3.45/3.46/3.47/3.48/3.49/3.50/3.51/3.52/3.53/3.54/3.55/3.56/3.57/3.58/3.59/3.60/3.61/3.62/3.63/3.64/3.65/3.66/3.67/3.68/3.69/3.70/3.71/3.72/3.73/3.74/3.75/3.76/3.77/3.78/3.79/3.80/3.81/3.82/3.83/3.84/3.85/3.86/3.87/3.88/3.89/3.90/3.91/3.92/3.93/3.94/3.95/3.96/3.97/3.98/3.99/3.100/3.101/3.102/3.103/3.104/3.105/3.106/3.107/3.108/3.109/3.110/3.111/3.112/3.113/3.114/3.115/3.116/3.117/3.118/3.119/3.120/3.121/3.122/3.123/3.124/3.125/3.126/3.127/3.128/3.129/3.130/3.131/3.132/3.133/3.134/3.135/3.136/3.137/3.138/3.139/3.140/3.141/3.142/3.143/3.144/3.145/3.146/3.147/3.148/3.149/3.150/3.151/3.152/3.153/3.154/3.155/3.156/3.157/3.158/3.159/3.160/3.161/3.162/3.163/3.164/3.165/3.166/3.167/3.168/3.169/3.170/3.171/3.172/3.173/3.174/3.175/3.176/3.177/3.178/3.179/3.180/3.181/3.182/3.183/3.184/3.185/3.186/3.187/3.188/3.189/3.190/3.191/3.192/3.193/3.194/3.195/3.196/3.197/3.198/3.199/3.200/3.201/3.202/3.203/3.204/3.205/3.206/3.207/3.208/3.209/3.210/3.211/3.212/3.213/3.214/3.215/3.216/3.217/3.218/3.219/3.220/3.221/3.222/3.223/3.224/3.225/3.226/3.227/3.228/3.229/3.230/3.231/3.232/3.233/3.234/3.235/3.236/3.237/3.238/3.239/3.240/3.241/3.242/3.243/3.244/3.245/3.246/3.247/3.248/3.249/3.250/3.251/3.252/3.253/3.254/3.255/3.256/3.257/3.258/3.259/3.260/3.261/3.262/3.263/3.264/3.265/3.266/3.267/3.268/3.269/3.270/3.271/3.272/3.273/3.274/3.275/3.276/3.277/3.278/3.279/3.280/3.281/3.282/3.283/3.284/3.285/3.286/3.287/3.288/3.289/3.290/3.291/3.292/3.293/3.294/3.295/3.296/3.297/3.298/3.299/3.300/3.301/3.302/3.303/3.304/3.305/3.306/3.307/3.308/3.309/3.310/3.311/3.312/3.313/3.314/3.315/3.316/3.317/3.318/3.319/3.320/3.321/3.322/3.323/3.324/3.325/3.326/3.327/3.328/3.329/3.330/3.331/3.332/3.333/3.334/3.335/3.336/3.337/3.338/3.339/3.340/3.341/3.342/3.343/3.344/3.345/3.346/3.347/3.348/3.349/3.350/3.351/3.352/3.353/3.354/3.355/3.356/3.357/3.358/3.359/3.360/3.361/3.362/3.363/3.364/3.365/3.366/3.367/3.368/3.369/3.370/3.371/3.372/3.373/3.374/3.375/3.376/3.377/3.378/3.379/3.380/3.381/3.382/3.383/3.384/3.385/3.386/3.387/3.388/3.389/3.390/3.391/3.392/3.393/3.394/3.395/3.396/3.397/3.398/3.399/3.400/3.401/3.402/3.403/3.404/3.405/3.406/3.407/3.408/3.409/3.410/3.411/3.412/3.413/3.414/3.415/3.416/3.417/3.418/3.419/3.420/3.421/3.422/3.423/3.424/3.425/3.426/3.427/3.428/3.429/3.430/3.431/3.432/3.433/3.434/3.435/3.436/3.437/3.438/3.439/3.440/3.441/3.442/3.443/3.444/3.445/3.446/3.447/3.448/3.449/3.450/3.451/3.452/3.453/3.454/3.455/3.456/3.457/3.458/3.459/3.460/3.461/3.462/3.463/3.464/3.465/3.466/3.467/3.468/3.469/3.470/3.471/3.472/3.473/3.474/3.475/3.476/3.477/3.478/3.479/3.480/3.481/3.482/3.483/3.484/3.485/3.486/3.487/3.488/3.489/3.490/3.491/3.492/3.493/3.494/3.495/3.496/3.497/3.498/3.499/3.500/3.501/3.502/3.503/3.504/3.505/3.506/3.507/3.508/3.509/3.510/3.511/3.512/3.513/3.514/3.515/3.516/3.517/3.518/3.519/3.520/3.521/3.522/3.523/3.524/3.525/3.526/3.527/3.528/3.529/3.530/3.531/3.532/3.533/3.534/3.535/3.536/3.537/3.538/3.539/3.540/3.541/3.542/3.543/3.544/3.545/3.546/3.547/3.548/3.549/3.550/3.551/3.552/3.553/3.554/3.555/3.556/3.557/3.558/3.559/3.560/3.561/3.562/3.563/3.564/3.565/3.566/3.567/3.568/3.569/3.570/3.571/3.572/3.573/3.574/3.575/3.576/3.577/3.578/3.579/3.580/3.581/3.582/3.583/3.584/3.585/3.586/3.587/3.588/3.589/3.590/3.591/3.592/3.593/3.594/3.595/3.596/3.597/3.598/3.599/3.600/3.601/3.602/3.603/3.604/3.605/3.606/3.607/3.608/3.609/3.610/3.611/3.612/3.613/3.614/3.615/3.616/3.617/3.618/3.619/3.620/3.621/3.622/3.623/3.624/3.625/3.626/3.627/3.628/3.629/3.630/3.631/3.632/3.633/3.634/3.635/3.636/3.637/3.638/3.639/3.640/3.641/3.642/3.643/3.644/3.645/3.646/3.647/3.648/3.649/3.650/3.651/3.652/3.653/3.654/3.655/3.656/3.657/3.658/3.659/3.660/3.661/3.662/3.663/3.664/3.665/3.666/3.667/3.668/3.669/3.670/3.671/3.672/3.673/3.674/3.675/3.676/3.677/3.678/3.679/3.680/3.681/3.682/3.683/3.684/3.685/3.686/3.687/3.688/3.689/3.690/3.691/3.692/3.693/3.694/3.695/3.696/3.697/3.698/3.699/3.700/3.701/3.702/3.703/3.704/3.705/3.706/3.707/3.708/3.709/3.710/3.711/3.712/3.713/3.714/3.715/3.716/3.717/3.718/3.719/3.720/3.721/3.722/3.723/3.724/3.725/3.726/3.727/3.728/3.729/3.730/3.731/3.732/3.733/3.734/3.735/3.736/3.737/3.738/3.739/3.740/3.741/3.742/3.743/3.744/3.745/3.746/3.747/3.748/3.749/3.750/3.751/3.752/3.753/3.754/3.755/3.756/3.757/3.758/3.759/3.760/3.761/3.762/3.763/3.764/3.765/3.766/3.767/3.768/3.769/3.770/3.771/3.772/3.773/3.774/3.775/3.776/3.777/3.778/3.779/3.780/3.781/3.782/3.783/3.784/3.785/3.786/3.787/3.788/3.789/3.790/3.791/3.792/3.793/3.794/3.795/3.796/3.797/3.798/3.799/3.800/3.801/3.802/3.803/3.804/3.805/3.806/3.807/3.808/3.809/3.810/3.811/3.812/3.813/3.814/3.815/3.816/3.817/3.818/3.819/3.820/3.821/3.822/3.823/3.824/3.825/3.826/3.827/3.828/3.829/3.830/3.831/3.832/3.833/3.834/3.835/3.836/3.837/3.838/3.839/3.840/3.841/3.842/3.843/3.844/3.845/3.846/3.847/3.848/3.849/3.850/3.851/3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**Macintosh****Niscan Portable Scanner available from Sidus**

Sidus Systems Inc., a leading Canadian computer manufacturer, has added the Niscan Page portable scanner to its growing product line.

Designed primarily at notebook owners who want the flexibility of being able to copy text or images on-the-go, the Niscan Page



SCANNER is a portable, flatbed, and roller-type, through-document scanner. It is about the size of a three-ring binder and weighs less than

three pounds. The Macintosh-based software (bundled with it) can capture and edit the information given to it, or it can be used in conjunction with fax software to enable the user to fax documents.

Unlike other desktop scanners which use a separate interface board, the Niscan Page plugs directly into a computer's parallel port

— a crucial requirement since most notebooks rarely have the space for an interface board. Equipped with a rechargeable battery, and has a maximum resolution of 600 dots per inch. Suggested retail price is \$1495. Contact: Sidus Systems (416) 480-1400.

**TRAINING****Learn Quark XPress at your own pace**

Macintosh, a Canadian firm specializing in training programs for the Macintosh plat-

form, has announced the first interactive self-instruct system for QuarkXPress.

Macintosh for QuarkXPress is designed to appear interactively with users, allowing the users to proceed at their own pace while learning the program. It contains an on-line training module, designed to learn to help both beginning and experienced users. With the purchase of the program comes collected over-the-phone support designed to help make the system even more effective for both screen-learning several people is easy.

Each module costs \$48.95. A special offer is currently available which gives the purchaser the fourth module for free when the first three modules are bought together.

Contact: Macintosh 1-800-387-5117

**EDUCATION****Math Made Easy**

Jes Publishing Inc., a Canadian software developer, has launched a new PC-based educational program called Math Made Easy.

Math Made Easy is designed for children age seven or older who are having difficulty

with math. Designed by educational profile format and illustrations, the program uses graphics designed to keep the child engaged while working on the math exercises given. It is designed to assist anything from older PC 80 machines to the latest PCs, and requires a minimum RAM of 1.5M, or 1.5M floppy disk format. A minimum version will be available in September.



Contact: Jes Publishing 1-800-663-1234

**The Human Calculator**

Complex's MathMaster has announced the introduction of a math learning program for children called The Human Calculator. Complex with the help of real life human calculator Scott Flamingo, the program is designed to teach children elementary math skills which simplify complicated problems. Students learn quickly and accurate ways of working with decimals, math operations, addition and subtraction problems.

The learning process is directed by the child whose success is measured on screen by an animated calculator who demonstrates challenges the child has to solve. In the process the child will help the calculator child's memory by adding, subtracting, changing through multiplication, and using changing help given by the calculator.

The Human Calculator is designed for PCs, and works in either 1.5M or 1.5M floppy disk or RAM. It is designed for children age nine and up, and also serves as an excellent review. The suggested retail price is \$149.95, and it is set to be released in September.

Contact: Complex Multimedia 1-800-643-2006

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## bookreview

# Unix for Dummies

REVIEWED BY KEITH SCHENGLI-ROBERTS

Authors: John R. Levine and Margaret Levine Prentiss  
 Publisher: IDG Books  
 Price: \$29.95  
 Software: 340 pages

Reading this book brought back not-so-pleasant memories of the time I had to get a mainframe computer at a university. It ran on Unix, and so I can fully appreciate the author's attitude for this book, "Your First Aha! for Dealing with the World's Least Intuitive Operating System." Essentially IDG is a book with an attitude. The attitude translates roughly as "I've taught this book so you must be doing it with me." You feel there's a wealth of down-to-earth advice for those faced with an operating system that used this book, "I'll help you." As with all of these types of books, the readers can get to you sometimes. But considering this is one of the best books I've seen on how to deal for maybe "nopes" is the better word with Unix in jargon-filled language. It tells the reader enough to be able to understand what is going on which is exactly what the learner, and where to go from there. There are useful sections on how to use some of the basic editing and communicating packages that come with Unix, and deals with the quirks that are specific to the many dif-

ferent types of Unix that are available. Its main conclusion is quite simple: "My Computer Says It's Not a Unix" and guess what? It is not. I wish I had this book when dealing with that nasty old machine to convince me it's not true for me, but it may not be too late for you. Highly recommended.

Contact: Prentice Hall Canada Inc., #10-290 3620



Author: Bob Taylor and Jim Boye  
 Publisher: New Riders Publishing  
 Price: \$22.95  
 Software: 320 pages

This book assumes you know nothing about Windows operations — so fast it goes to teach you to point and click that "Windows" is the title is a computer program, and has nothing to do with double clicking or how to otherwise operate your home. This is a genuinely funny and useful book on how to operate in the Windows environment.

The book comes with many useful discussions of Windows operating on a computer screen, and manages to cover just about every pitfall you might run into while using Windows — and in doing so, you'll know, there are plenty of them.

The book highlights various useful tricks in Windows, and also shows you to do in certain situations. There are also "ready-made" which provides the user with technical information which is sometimes good to know, but not necessary to operate your computer under Windows. On occasion, technical terms are also provided where necessary, then and only in English.

There will be people who will find the

approach in this book amusing, but my feeling who buys this book will find it a handy reference, especially when things go wrong. Take it from somebody who has 100 books of information on a computer need — this is a good book to have.

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## bookreview

## Master C: Let the PC Teach You C

Authors: Michael Weitz, Stephen Prata and Paul Schoenit

Publisher: The Writings Group 200 pages, published in 1985 Cover price \$19.95 ISBN Price \$20.95

This book on how to program in the C computer language comes with three 5 1/4" disks — or maybe I should say that the disks come with the book, because it is the software that really shines here. The book serves primarily as a handy reference and glossary, and deals more with how to operate the computer programs that come with the book rather than teaching you anything about C itself. Based on the ANSI C, computer language, the book says there is very no formal and requires a bare minimum of instruction from your computer. It will work on other systems with DOS.

Built up when installed with MS-DOS 2.02 to your system file. The program provides a set of 15 lessons in C, which the user can do in less than one hour. It often updates the user on terminology, and is sophisticated enough to accept more than one answer given to it. It guides the user through lesson concepts to more advanced topics in C, and then what remains you have completed. Master C is a serious course if you have got 80% of the questions correct, and it gives you the opportunity to review questions you originally missed. This book/soft is not for people who already know C computer language and want to know C, and is also a good potential program for students of C. ■

Contact: Clegg Clark Pines, (616) 234-4824

## Assembly Language: Step-by-Step

Author: Jeff Gonsky

Distributors: John Wiley and Sons, Inc. 300pp 400 pages Price \$24.95

First off, I'm not for that assembly language is not for everybody. When you're writing in assembly you are using code that the computer understands directly. This means that it is written both computer-friendly and human-friendly. Having said that, this book is a nice

## REVIEWED BY KEITH SCHMIGLI-ROBERTS

introduction to the field. The author assumes the reader has had to the level of computer or computing, and goes to some pains to extensively explain some basic concepts before getting into the nitty-gritty.

The book is designed to teach assembly language for use with the Intel line of microprocessors in a number of ways that is not to say that the book is, however, not as the author explains the learning process with a lot of examples and also

links assembly ways to teach the basics of assembly. For example, the chapter that teaches the reader how to count in a different numerical base is called "Binary Bases" and uses an imaginary Martian numbering scheme with numbers like "fifty". Discreetness goes on to look at how to lay out code, understanding logic operations and how to put everything together (into assembly, but running programs).

Don't be fooled, in reading assembly is not easy and will require a lot of work on

behalf of the reader to be able to fully comprehend and use the concepts covered in this book. But the real results are well worth the effort, and this is a good book to start with.

Contact: John Wiley and Sons, Inc. (609) 679-3586

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## what's new

### Silicon Graphics Unveils the Indy

MILWAUKEE (TCP) — Silicon Graphics, involved in new Indy system, a computer with high end graphics and multimedia capabilities at a relatively competitive price.

The Indy comes standard with a color 19" flat video camera, which can capture both still and full motion video footage. The Indy delivers the type of impressive graphics that has come to be associated with SGI and Graphics-computers.

The Indy is aimed at taking away some of the market from high-end graphics-oriented PCs and Macintoshes, and is capable of running most programs through the use of emu-

lation boards. Over 1,000 native applications currently run on the Indy, including programs for CAD/CAM, video production, database management and publishing.

The base machine costs \$24,995 and comes with 16MB of RAM, a digital color video camera, 12" color monitor, keyboard, mouse, an i diskette, configuration utility, and 500 MB of hard disk. It also ships with Indigo Major, Silicon Graphics' own graphical user interface, digital media software tools and a CD-ROM of games.

Contact: Silicon Graphics (416) 425-4347 ■

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## what's new

NEW RELEASE

## 3D Micro Packages Affordable Multimedia



of each family member to determine the best configuration. It had to be powerful enough for parents who do office work at home and easy enough for young children to use.

With a suggested list price of only \$199, the MPC-4000000 is manufactured in Canada based on the 350MHz i486, the 120 is configured with a full set of RAM, a 10MB hard drive, a SuperVGA monitor and card, 160000 x 640 Windows 3.1 and a Microsoft mouse.

The CD-ROM ships with a starter kit of four CD titles including Internet Explorer

3D, MS-Works, Family Doctor and Family and the Book.

3D Micro is the South's largest supplier of personal computers in Canada.

Contact: 3-D Micro • 1-800-446-7020

**A**n internal CD-ROM drive, sound and external speakers and all the basic multimedia bells and whistles will make 3D Micro's MPC-4000000 a serious contender for the family computing buy at the coming month.

Clayton Young, 3D Micro's executive vice-president, says, "We considered the needs

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# newsbytes

EXCLUSIVE NEWS

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## PC Expo: Low-cost, High Res. Scanner From UMax

NEW YORK, NEW YORK, 1993 — At PC Expo in July, UMax rolled out a low-cost, high-resolution scanner.

Priced at \$2,499 for the Windows and Mac models and \$2,699 for Unix, the new UC1240 (rated scanner is designed for use in desktop publishing, computer graphics and other applications requiring resolution

of up to 3,000-by-2,400 dpi (dots per inch) and 48-bit RGB, marketing director, in an

**The only scanners that achieve hardware-only resolution of this degree are drum scanners, a category priced in the \$10,000 to \$500,000 range**

interview with Newsbytes.

Yang told Newsbytes that, like the company's high-end 30-bit, one-pass UC10000 (rated scanner, the new 24-bit, three-pass UC1240 reaches an optical resolution of 600-by-1200 dpi, a level that is raised to 2,400 by 2,400 dpi through software interpolation.

The only scanner that achieves hardware-only resolution of this degree are drum scanners, a category priced in the \$10,000 to \$500,000 range, said Yang.

"A professional might be able to tell the difference between the results obtained

from a drum scanner and our limited scanners with software interpolation. If the image is enlarged that to most eyes, the results are indistinguishable," she said.

The UC1240 is a low-costworthy (at its high-speed scanning, amounting to 3.5 seconds per page) for color and 12 spt for line art, according to the marketing director.

The new scanner joins a family that also includes the Unix UC1000 low-cost desktop publishing Yang told Newsbytes that all UMax scanners feature drivers and fully

Truevision graphics, meaning that users can scan images from any application that supports the Truevision standard. The Windows and Mac versions of the UC100 are bundled with Photoshop and the Unix model with Core software for image editing and retouching. The Unix model operates with Sun SPARCstations, IBM RS/6000 and DEC Ultras.

Options include an automatic document feeder, priced at \$495, and a transparency adapter, priced at \$3,995. Yang told Newsbytes that all models of the UC1000 will ship in mid-1993. ■

Contact: UMax, 416-451-6881



## ADDA Announces Mac to Video External Box

WATKINS, IL (CPN) — ADDA Technologies has stepped into the blackboard market with the introduction of the AffinityMac: external computer-to-video converter.

The AffinityMac can take a Mac computer signal and output it to regular VCR or television. The box can handle up to 45,000 colors and has flicker-free video circuitry like a very stable video image. The box also supports E-computer and RGB video and can be purchased in either PAL or NTSC format.

The company also sells a PC version of the Affinity. ■



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## Business

# Sales Of "P-3s" To Reach \$3.5B By '98

NEW YORK, NEW YORK, JUNE 21 — Sales of "P-3s" personal computers and communicating devices will climb up 50% annually to a total of \$3.5 billion in 1998, says a new survey by Link Research and International Data Corp. (LRC), announced at LRI Expo June 21.

Communications will be the "killer feature" for many users, according to the study, which estimated demand for a new market segment dubbed "P-3s" (Personal Productivity Systems).

The new P-3 category includes PCs (personal digital assistants), personal information organizers, pen-based computers, hand-held multimedia on CD-ROM devices, and integrated consumer-oriented products, according to the study.

Some of the P-3s on personal productivity devices used for multiple functions the next day, users will act as knowledge-based assistants in skilled workers' jobs, and others will use in improving the productivity of executives and managers.

"There is excitement, uncertainty and slight wriggle around the market for P-3s," says the survey. "The market is ready with the exception of P-3s, but the study predicts important new responses to the segment, rapid pricing, and future success of products in this emerging market."

place," commented Bruce Dreyfus, director of PC Hardware Research at IDC.

The report estimated that data and value communications and services are needed by over 80% of potential P-3 buyers. Further, P-3 products are starting to be used in desktop computers, systems of desktop PCs and workstations that are expected to be mobile use and long battery life. Coordination of files and schedules, plus managing, are mobile workers' primary applications.

Mobile services of network desktop or network computers may be required for desktop computers. Applications for desktop or network desktops are expected to be used in desktop computers. When desktop computers users logically tend to process data, mobile users are not concerned of data from hand-held to voice and from hand-held to network.

The study also predicted that significant market growth will be obtained with network desktop and effectively mobile systems that provide the mobile data with sophisticated benefits. Success of the new devices will depend not only on the hardware features, but on the integration with communications networks and services. The researchers concluded.



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## PC Expo: IBM Unveils PC-DOS 6.1, Disk Doubling Upgrade

NEW YORK NEW YORK (AP) — An PC Expo IBM unveiled PC-DOS 6.1 along with plans to provide a free upgrade to September that will easily load PC-DOS 6.1 and 6.1 with the disk compression capabilities of Microsoft's competing MS-DOS 5.0. In a press conference release the product was announced, IBM officials said that PC-DOS 6.1 will be the only DOS to ship with user extensions and Personal Manager Plus, software that provides advanced management of PC/ATs cache. PC-DOS 6.1 will also include built-in Basic Control Point Software for backup, security management and scheduling, as well as newly developed anti-virus technology from IBM.

Jim Kerner, president of IBM's PSF (Personal Software Products) Division, stated that IBM will be offering an upgrade that integrates a complete version of Addict's SuperDisk (S.D.) with PC-DOS 6.1 as a 5.25" floppy with Novell's NetWare 2.11 for portability, a requirement that the SuperDisk S.D. upgrade will become available in mid to late September.

According to Kerner, Super Disk/5.25 will provide real time data compression (S.D.) can up to double the capacity of fixed and removable disks. The software will also include password protection, integrated disk caching, enhanced memory management and support for Universal Disk Cache (UDC), a feature ensuring that data read from its removable media can be read by a

DOS system even if compression software is not installed.

SuperDisk/5.25 will run with DoubleSpace and the Microsoft Real-time Compression technique specified in a growing library of regular from the International disk doubling software to DoubleSpace, a capability aimed. In particular, an environment in which software is to be stored between PC-DOS and the Microsoft MS-DOS product.

The first DOS extensions included in PC-DOS 6.1 are designed to let users navigate most commercial DOS applications using a new Personal Manager Plus that integrates from Personal Technology, includes the Enhanced Cache for simplified maintenance and configuration, Advanced Personal Manager (APM) support for host insertion and removal of PC/ATs cache without rebooting, and several DOS and Windows utilities geared to ease of use including the ability to PC-DOS disk configuration status.

The new real time utility is designed to scan for identify and eliminate over 1,000 computer viruses, leaving only the system. The tool also offers such features as a small memory footprint, a busy logic region to assist in identifying, installing viruses and advanced file access control.

PC-DOS 6.1 will be priced in 1985 at the time product will be priced at \$24.95 for the first PC-DOS, though, the price can be obtained for \$20.00 by buying 1,000 MS-DOS.

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# Canadian Product Launch Update

With PC DOS 6.1, Olivetti's Quadrex 75 processors and 160 MB SupraMac desktop PCs, and Ascot's 47000 68k port.

IBM Canada said that its latest version of the DOS operating system, PC DOS 6.1, will be available this month. The Canadian list price is \$21.99, and an upgrade from a previous version of DOS will cost \$10.99. IBM Canada also has a 90-day introductory offer,

which says that by calling the company at 800-463-7999 customers can get the software for \$259.95.

Olivetti Canada announced the Quadrex 75, a new version of its notebook computer that comes with disk cache 600-ahs, 8 1/2 inch Microsoft's Windows 3.11 software, integrated software and total upgrade personal information manager pro-

cessed. To be available in August, it has a list price of \$23,349.

Olivetti also launched its 486 SupraMac line of personal computers in Canada, which includes models based on the Intel 486 processor (48600, 48610, 48620, 48630, 48640, 48650) processor.

Olivetti is now shipping the 48630 and 48640-based models in Canada at list prices of \$21,500 and \$24,500 respectively, with eight megabytes (8M) of memory, 240MB hard drive and video controller. The 48630-based 48640 is not yet available in Canada, a spokesman said.

Norix Canada launched its 47000 68k Ascot Document Processor, a full-scale laser pro-

cessor that supports both the PostScript and Hewlett-Packard PCL3 page description languages and is rated at 3.5 pages per minute in full color and at least as 30 pages per minute in black and white. All Canadian customers with Xerox 4700 printers are eligible for a free upgrade to the 4700 II, starting in September, the company said.

Canada, IBM Canada, 416-424-0003; Olivetti Canada, 416-447-74250 ext. 220; Xerox Canada, 416-751-6736.

## TECHNOLOGY

### Fear of Technology Is Phobia of the '90s

AMSTERDAM, N.L.A. (UPI) — According to the results of a nationwide survey by IBM Computer Corporation, more than half of all Americans are still reluctant to taking advantage of technology in their lives.

The survey showed that one-fourth of all U.S. adults have never used a computer, and a 1973 to attend a television show or programmed their favorite station's musical radio.

Dell says that the survey is part of a trend or study over the past 10 years, which includes extensive market research from groups and feedback from some of 35,000 customer calls Dell says it receives daily.

Dell chairman Richard Dell says the company used the survey results to "customize" more into any of several financial categories. Dell says technology-based help help people understand what computers can do specifically for them and how they can go about finding their perfect PC match. Dell says the firm has used for research to identify based customer acceptance for computers in the U.S.

The survey shows that although more people technically handle than adults with 10 percent of all those surveyed saying they are comfortable using technical progress such as answering machines, VCR's, CD players and computers, about 74 percent of surveyed adults said they are not comfortable with the equipment. Trends and adults say that using computers can save them time, although 31 percent of the adults say they are comfortable for computers and that they might damage the machine when using it.

Dell's technology-based technical support, technical support, technical support and technical support. The company says that technical support are usually technical support experts in technology's what want the latest technology for the latest price.

Technical support describes the person who wants a computer that consistently to work, and is interested in what the computer will do for them. Dell says it is a technical support. Dell, wants to look much, also wants to look opportunities before making a purchase. Technical support expert technology is possible whenever possible.

Corporate technology-based computer, as computers, usually on a network. Productivity is their primary concern for work that is largely not a team-oriented. Technical support describes the corporate user who relies on computers for sophisticated tasks while are critical to doing the job such as computer-aided engineering or design.

Dell's technology-based person will be an independent operator who is technically dependent but also practical. Their concern is system failure because it hurts business.

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## Business

## Apple Launches Quadra &amp; Centris "AV"

CLIPPING: CALIFORNIA (MD) — Apple has introduced its next generation Macs: the Quadra 6400 (known as "Quadra" in the development) and the Macintosh Centris 6500 (known as "Centris" in the development). Both new Macs — released

recently, NTSC and PAL video in composite and S-video formats.

The audio processing features a 16-bit 22.05 kHz digital signal processor. The chip has voice recognition and speech capabilities and will be used in Macintosh 14-bit

AVSOS. The machines will also feature Apple's "Image" video compression technology opening the door to development for world-class computer applications.

The 6400 has a 66MHz 68040 CPU, three 10-megabyte hard disks, 8MB of RAM, expandable to 128MB and a 330MB hard drive. In Canada, an suggested retail price is \$2,500.

The Centris 6500, with a Canadian suggested retail price of \$2,599, features a 20MHz

68040 (with cache coprocessor), a single 14-bit dot, 6888 of RAM, expandable to 68MB, and an 8MB hard drive. Higher capacity hard drives and CD-ROM drives will be optional on both models.

Apple says upgrades will be available to Centris 650 and Quadra 6400 owners later this year. Both computers will support upgrades to PowerPC in the future. ■



to be the last generation of Mac based on the Macintosh II architecture—feature built-in digital video. 25 pin digital signal processing, a new video memory source bus and a high speed serial port known as UniPort.

The "AV" indicates the improvements in audio and video on both machines are side by side and output high quality video and audio. The video is compatible with 14-bit

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16-bit 6144 kHz	16-bit 6144 kHz
16-bit 12288 kHz	16-bit 12288 kHz
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16-bit 12582912 kHz	16-bit 12582912 kHz
16-bit 25165824 kHz	16-bit 25165824 kHz
16-bit 50331648 kHz	16-bit 50331648 kHz
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16-bit 1649267441664 kHz	16-bit 1649267441664 kHz
16-bit 3298534883328 kHz	16-bit 3298534883328 kHz
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16-bit 26388279066624 kHz	16-bit 26388279066624 kHz
16-bit 52776558133248 kHz	16-bit 52776558133248 kHz
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16-bit 211106232532992 kHz	16-bit 211106232532992 kHz
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16-bit 973555660975280180349468061728768 kHz	16-bit 973555660975280180349468061728768 kHz
16-bit 1947111321950560360698936123457536 kHz	16-bit 1947111321950560360698936123457536 kHz
16-bit 3894222643901120721397872246915072 kHz	16-bit 3894222643901120721397872246915072 kHz
16-bit 7788445287802241442795744493830144 kHz	16-bit 7788445287802241442795744493830144 kHz
16-bit 15576890575604482885591488987660288 kHz	16-bit 15576890575604482885591488987660288 kHz
16-bit 31153781151208965771182977975320576 kHz	16-bit 31153781151208965771182977975320576 kHz
16-bit 62307562302417931542365955950641152 kHz	16-bit 62307562302417931542365955950641152 kHz
16-bit 124615124604835863084731911901282304 kHz	16-bit 124615124604835863084731911901282304 kHz
16-bit 249230249209671726169463823802564608 kHz	16-bit 249230249209671726169463823802564608 kHz
16-bit 498460498419343452338927647605129216 kHz	16-bit 498460498419343452338927647605129216 kHz
16-bit 996920996838686904677855295210258432 kHz	16-bit 996920996838686904677855295210258432 kHz
16-bit 1993841993677373809355710590420516864 kHz	16-bit 1993841993677373809355710590420516864 kHz
16-bit 3987683987354747618711421180841033728 kHz	16-bit 3987683987354747618711421180841033728 kHz
16-bit 7975367974709495237422842361682067456 kHz	16-bit 7975367974709495237422842361682067456 kHz
16-bit 15950735949418990474845684723364134912 kHz	16-bit 15950735949418990474845684723364134912 kHz
16-bit 31901471898837980949691369446728269824 kHz	16-bit 31901471898837980949691369446728269824 kHz
16-bit 63802943797675961899382738893456539648 kHz	16-bit 63802943797675961899382738893456539648 kHz
16-bit 127605887595351923798765477786913079296 kHz	16-bit 127605887595351923798765477786913079296 kHz
16-bit 255211775190703847597530955573826158592 kHz	16-bit 255211775190703847597530955573826158592 kHz
16-bit 510423550381407695195061911147652317184 kHz	16-bit 510423550381407695195061911147652317184 kHz
16-bit 1020847100762815390390123822295304634368 kHz	16-bit 1020847100762815390390123822295304634368 kHz
16-bit 2041694201525630780780247644590609268736 kHz	16-bit 2041694201525630780780247644590609268736 kHz
16-bit 4083388403051261561560495289181218537472 kHz	16-bit 4083388403051261561560495289181218537472 kHz
16-bit 8166776806102523123120990578362437074944 kHz	16-bit 8166776806102523123120990578362437074944 kHz
16-bit 16333553612205046246241981156724874149888 kHz	16-bit 16333553612205046246241981156724874149888 kHz
16-bit 32667107224410092492483962313449748299776 kHz	16-bit 32667107224410092492483962313449748299776 kHz
16-bit 65334214448820184984967924626899496599552 kHz	16-bit 65334214448820184984967924626899496599552 kHz
16-bit 130668428897640369969935849253798993199104 kHz	16-bit 130668428897640369969935849253798993199104 kHz
16-bit 261336857795280739939871698507597986398208 kHz	16-bit 261336857795280739939871698507597986398208 kHz
16-bit 522673715590561479879743397015195972796416 kHz	16-bit 522673715590561479879743397015195972796416 kHz
16-bit 1045347431181122959759486794030391945592832 kHz	16-bit 1045347431181122959759486794030391945592832 kHz
16-bit 2090694862362245919518973588060783891185664 kHz	16-bit 2090694862362245919518973588060783891185664 kHz
16-bit 4181389724724491839037947176121567782371328 kHz	16-bit 4181389724724491839037947176121567782371328 kHz
16-bit 8362779449448983678075894352243135564742656 kHz	16-bit 8362779449448983678075894352243135564742656 kHz
16-bit 16725558898897967356151788704486271129484512 kHz	16-bit 16725558898897967356151788704486271129484512 kHz
16-bit 33451117797795934712303577408972542258969024 kHz	16-bit 33451117797795934712303577408972542258969024 kHz
16-bit 66902235595591869424607154817945084517938048 kHz	16-bit 6690223559559186942460715481794508

## APPLE

# The First Apple Newton is Launched

Apple Canada has unveiled the first of its next-generation Personal Digital Assistant (PDA) products — the Newton MessagePad.

Engineered to fit on a table and sit in a briefcase, the Newton MessagePad has space-saving features and capabilities. About the size of a 16-in. paper notepad, it comes with a large LCD display and pen and touch input modes. In portrait, the Newton recognizes handwriting allows users to palm or write messages on its screen, which the Newton can display and translate into formatted text. It can also draw up rough sketches entered into it, by integrating pen lines and recognizing the geometry of objects.

The Newton MessagePad is also designed to "work smarter," using intelligent, adaptive architecture to help users

store single commands to help schedule meetings, initial call letters, and arrange appointments. A built-in address book stores up to 1,000 names and addresses and e-mail messages and notes onto a notebook.

Adding to its capabilities made between Apple Canada and Carol Fetting will allow Newton users to view notes when using paging capabilities throughout Canada by subscription. Similar arrangements have been

made with WorldLink, Southern Bell, and Pacific Bell, offering users, either from a mobile wireless e-mail, news and information services or video linking Newton customers.

Using an Apple custom 68040 410 MHz processor, running at 10MHz, the Newton MessagePad comes standard with such as ROM 640K of RAM, a PCMCIA type II slot, a LocalTalk compatible serial port

and an infrared receiver. Anticipated prices for the Newton MessagePad range from less than \$1,000 for the Newton MessagePad 1000 to over \$2,000 for the Newton MessagePad 2000, which comes with an AC adapter, external modem, and Newton Connection Pro for Windows, for \$1,199.

Contact: Apple Canada (416) 477-3320



## PenMagic Develops Newton Apps

PenMagic, Inc. — PenMagic Software Inc. is a software development company that specializes in developing software for the Newton MessagePad. The company has developed several applications for the Newton MessagePad, including a calendar, a to-do list, a contact manager, and a note-taking application. The company is currently working on developing a new application for the Newton MessagePad, which will be available in the near future.

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Contact: PenMagic (416) 477-3320

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## Acrobat & Common Ground: Pathways To The Paperless Office?

**SAN DIEGO** — The year began when you hear the phrase "Japanese effect" fall from your lips.

Ground and Active Area has designed its first complex electron microscope. It has frequency beam computers like this plate that does how we track stepping. Using this technology, anyone can view records and print any electronic document without having the need for an emulator or buffer.

No Magic Software says the key to ConnectAround is a promise: "DigitalPages is a new platform for the web that lets a user take a document into a 3D environment that can be universally viewed and printed. Think Mac and PC, and we'll be able to see the 'digital paper' with ConnectAround viewing software on their portable computers. (The Windows version is scheduled to ship later this year.)

More than just inert "paper" on your display, the elements of digital paper can be expanded and packed like up when text is graphic. Lexmark General also lets you search stored notes the keywords, a new do with

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Information: Author is Jonathan Lurie, director of the Project on Consumer Policy (PPCP), which is a non-denominational

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is also supported over other Adobe technologies: the Flashlight page describes languages and hyperHTML's multiple-mouse-button extensions.

When a receiving computer does have the Acrobat or Common Ground software to view the document, Web Common Ground's reader can include a "File Version" slider designed to let visitors Common Ground's drawing software. It allows the teacher to both view and

the document in email also allows it to be embedded into any Common Ground document so that all the members need do to see the document, subscribe to it, or if

Each member has a viewing box which contains a stopped-down window of Adobe's viewing software. Acrobat Exchange Reader allows users to view desktop and print PDF files, but a general purpose Acrobat Reader, rather than a tool kit of which Acrobat Exchange is a subset, is not. There is no live viewer for document documents, but the third party developers interested in creating one. Adobe will make an application programming interface available.

Common Carotid artery is smaller than and faster speed than Aorta and value is less 100/100mm. The Brachial Artery is an Artery of the arm and value is 100/60mm.

Acetone exchange is proved according to the quantity involved, with a range of USD 10 to US\$ 1,000 per user. Standard Acetone will range from US\$ 11 to US\$ 900 per user. Documents that contain Acetone or high-resolution color images transfer to the "filled" or PDF format with the Acetone Compiler. A single user version of Acetone Compiler will cost for USD 999 while a version that allows unlimited network users will cost for USD 2,999. Acetone is at Information New York at 212-563-4600. ■

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## Learn and Play Music on Your Computer Without MIDI Cards or MIDI Instruments

San Francisco, CA: CDS - This software was announced that it is now shipping. Solist, offering a "revolutionary means of music program." According to company officials, with Solist, you can learn to play music with your computer and virtually no hardware or electronic instruments. Solist will even teach you how to play a keyboard and requires no previous music experience. The program does require a sound blaster-compatible sound card and a microphone.

In conjunction with the sound card, Solist provides a sample of the sound created by the user with his or her instrument. Then, using MIDI technology, the program instantly analyzes that sample and translates it into MIDI. Solist follows the user, via an on-screen manager, of the accuracy of what he/she has just played. Solist is the first program to incorporate this technology.

Designed primarily for people who want to learn to play or to improve their playing abilities, Solist reacts to the user's tone and makes notes on a Grand Staff to play them back correctly. Even by using Solist in conjunction with a Sound Blaster compatible sound card and a microphone, the user can interact with the computer using his or her voice or even, acoustically, with various (guitar, piano, etc. etc.) or even to instruments (guitar, piano, etc.).

"Millions of computer users have an interest in music," said library files, also provided and printed "a total millions of

people have now MIDI instruments. With this new technology, he or she can start learning to play music with their computer right away without having to make expensive investments in MIDI equipment. Solist contains the convenience of being able to connect to the broadest software possible, and is absolutely free." Solist available for \$29.95.

There are 16 different variations to Solist, with new musical phrases learned each session. The player can use Solist in three different modes: as a game, as a practice session, and as an explanatory mode (this means that any played or song will appear on the Grand Staff with their correct note names). Advanced level details include playing tempo and multiple keys. Users can choose to practice a specific level as often as they like. In the practice mode, the user can set Solist to play loops - from 30 to 120 beats per minute.

A Windows 3.11 interface allows for the greatest variations based on instruments. For example, the key of C is B-flat for saxophone. Solist allows for these variations easily and transparently to the user.

Solist requires an 80486 or 80386 compatible 386 (244 or higher) MS-DOS 3.1 or higher 486 RAM, an VGA, VGA Monitors or VGA Monitor, a Sound Blaster compatible sound card and a microphone. The user must supply their own instrument. Contact: CDS Software (415) 344-1917

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## CALENDAR OF EVENTS

### SEPTEMBER

**THE COMPUTER FOR THE ENTREPRENEUR** - Learn to use your computer with a presentation, your first business plan, financial projections. The meeting will be held at 121 St. Paul Street from 9:00am to 12:00pm. The fee is \$10.00. For more information, call: 416-593-1111. (See listing on page 21)

**ADDITONAL INFO: A COMPUTER FOR THE ENTREPRENEUR** - The Ontario Personal Computer Expo, held from June 24-26, 1993, will be the largest computer expo in the world. It will be held at the Ontario Convention Centre, 100 Queen Street West, Toronto. For more information, call: 416-593-1111.

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### NOVEMBER

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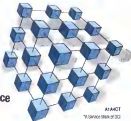
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